

1       Claims

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3           1.       A rotary bending tool, comprising:

4                   a saddle comprised of an elongated member formed with a partially cylindrical

5                   open recess extending lengthwise along said saddle;

6                   a rocker comprised of an elongated member having a partially cylindrical outer  
7                   surface fit to said partially cylindrical portion of said saddle recess, said saddle recess to allow  
8                   relative rotation therein, said saddle partially encircling said rocker to capture the same;

9                   said rocker having a V-shaped recess extending lengthwise along said rocker, said  
10                  V-shaped recess positioned to face away from said saddle recess with said cylindrical saddle  
11                  recess and said partially cylindrical surface of said rocker interfit together;

12                  a series of pins each received in respective one of a series of holes in said saddle  
13                  and entering a respective one of a series of pockets formed into said cylindrical surface of said  
14                  rocker;

15                  a spring associated with each pin holding said pin in said respective pocket of said  
16                  rocker;

17                  a series of oil impregnated graphite plugs mounted into a surface defining said  
18                  saddle recess and engaging said rocker cylindrical surface, said series distributed along the length  
19                  of said saddle recess, lubricating said rocker cylindrical surfaces.

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21                  2.       The rotary bending tool according to claim 1 wherein said series of  
22                  graphite plugs are arranged in two side by side rows extending along said saddle recess.

1                   3.       The rotary bending tool according to claim 1 wherein each of said graphite  
2       plugs have an arcuately contoured end in engagement and conforming with said rocker  
3       cylindrical surface.

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5                   4.       A method of manufacturing the rotary bending tool of claim 1 including  
6       the steps of machining said rocker to form said V recess and rocker cylindrical surfaces,  
7       subsequently heat treating said rocker to harden said rocker, and thereafter reverse bending said  
8       rocker to eliminate any warpage thereof caused by said heat treating.

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